

## ABSTRACT OF THE DISCLOSURE

DYNAMIC QOS FOR INTEGRATED VOICE AND  
DATA CDMA/1XRTT NETWORKS

5 A method, system and program product which improves the QoS and GoS  
of voice and data traffic on an integrated communications network. An RF  
spectrum allocation application/algorithm provides initial allocation of a  
percentage of available spectral resources to current voice and data traffic. Each  
10 allocated percentage is bounded by a sliding window, which adjusts its location  
based on the changing need for the resources. Thus, a voice sliding window  
dynamically adjusts its location to provide additional spectral resources to voice  
traffic when the voice traffic increases and provides less spectral resources when  
the voice traffic decreases. Likewise, a data sliding window dynamically adjusts  
15 its location to provide additional spectral resources to data traffic when the data  
traffic increases and provides less spectral resources when the data traffic  
decreases. The size of each window is determined by input parameters. When  
heavy voice and/or data traffic is present, the maximum available spectral  
resources are utilized and shared between both traffic types based on the RF  
20 spectrum allocation algorithm. Whenever an overlap in the windows occurs, the  
algorithm dynamically determines which of the traffic types to allocate the  
remaining spectral resources based on a number of factors, including the  
cost/financial factors and QoS and GoS calculations.